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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775.192	02/11/2004	John Wesley Gardner	241744US13	1625

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EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/775,192	Applicant(s) GARDNER ET AL.	
	Examiner Jeremy Luks	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/11/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3-5, 7, 10, 14 and 15 rejected under 35 U.S.C. 102(b) as being anticipated by D'Antonio (5,817,992).

With respect to Claims 1, 3, 5, 7, 10, 12 and 15, D'Antonio teaches a membrane having first and second faces (Col. 6, Line 8-12, 32-34); a first rectilinear substrate (Figure 7) disposed on the first face of the membrane (Col. 6, Lines 32-34) and having (i) a plurality of first absorptive regions and (ii) a plurality of first reflective regions formed as wells in a face of the first substrate, the first absorptive regions and the first reflective regions arranged in a pre-defined grid pattern (Col. 1, Line 61-Col. 2, Line 11); and a second rectilinear substrate (Figure 8) disposed on the second face of the membrane (Col. 6, Lines 32-34) and having (i) a plurality of second absorptive regions and (ii) a plurality of second reflective regions formed as second wells in a face of the second substrate, the second absorptive regions and the second reflective regions arranged in the pre-defined grid pattern (Col. 1, Line 61-Col. 2, Line 11); wherein the pre-defined grid pattern is arranged in accordance with a random binary sequence where a zero of the binary sequence is represented by a first absorptive region of the plurality of first absorptive regions and a one is represented by a first reflective region of the plurality of first reflective regions, and the second substrate is disposed on the second face of the membrane 180 degrees out of phase relative to the first substrate (Col. 1, Line 61-Col. 2, Line 11) (Col. 4, Lines 51-56); and wherein each

substrate is no greater than two inches thick, made of compressed fiberglass, and the entire structure is covered by a fabric (Col. 5, Lines 36-39).

With respect to Claims 4 and 14, D'Antonio teaches wherein there is an equal distribution of first absorptive regions and first reflective regions in both the vertical and horizontal directions, respectively, of the first substrate (Figure 7) (Col. 2, Lines 3-11) and there is an equal distribution of second absorptive regions and second reflective regions in both the vertical and horizontal directions, respectively, of the second substrate (Figure 7) (Col. 2, Lines 3-11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over D'Antonio (5,817,992) in view of Reinhardt (4,815,018). D'Antonio is relied upon for the reasons and disclosures set forth above. D'Antonio fails to teach a random binary sequence generated by a Gaussian random number generator. Reinhardt teaches a random binary sequence generated by a Gaussian random number generator (Col. 5, Lines 23-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of D'Antonio, with the apparatus of Reinhardt to generate a non-repeating sequence of numbers.

2. Claims 6, 8 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over D'Antonio (5,817,992) in view of Wolf (4,496,024). D'Antonio is relied upon for the reasons and disclosures set forth above. D'Antonio fails to teach a non- porous membrane made of a solid material; wherein the membrane is no greater than 1.7 ounces per square ft. Wolf teaches a non- porous membrane (Figure 1, #20) made of a solid material (Claim 1, Col. 3, Lines 60-61); wherein the membrane is no greater than 1.7 ounces per square ft (Col 2, Lines 34-63). It is inherent that the thermoplastic layer (20) described by Wolf will be no greater than 1.7 ounces per square foot given the type of material it is made of and that it is merely a bonding agent.). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of D'Antonio, with the apparatus of Wolf to secure the panels together with a long-lasting bonding agent for greater durability over time.

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over D'Antonio (5,817,992) in view of D'Antonio (6,112,852). D'Antonio ('992) is relied upon for the reasons and disclosures set forth above. D'Antonio ('992) fails to teach wherein the wells are cylindrical in shape. D'Antonio ('852) teaches wherein the wells are cylindrical in shape (Figure 1B) (Col. 3, Lines 2-4). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of D'Antonio ('992), with the apparatus of D'Antonio ('852) to attain a desired density of the panel.

Conclusion

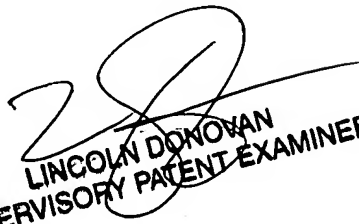
4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pertinent arts of record relating to flat panel diffusers are disclosed in the PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks
Patent Examiner
Art Unit 2837


LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER